## This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

BLACK BORDERS

IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

FADED TEXT OR DRAWING

BLURRED OR ILLEGIBLE TEXT OR DRAWING

SKEWED/SLANTED IMAGES

COLOR OR BLACK AND WHITE PHOTOGRAPHS

GRAY SCALE DOCUMENTS

LINES OR MARKS ON ORIGINAL DOCUMENT

REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

IMAGES ARE BEST AVAILABLE COPY.

OTHER:

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

Substitute for Form 1449A/PTO (Modific nplete if Known **Application Number** 09/767,647 INFORMATION DISCLOSURE 1/22/01 Filing Date STATEMENT BY APPLICANT (use as manuscript) First Named Inventor: Rising III. Group Art Unit 2621 **Examiner Name** Sherali, I. MAR 7 6 2004 **Attorney Docket Number** 80398.P341 of Sheet **U.S. PATENT DOCUMENTS** Cite PADENT Document Name of Patentee or Applicant Date of Publication Pages, Columns, Exam. Initial\* of Cited Document of Cited Document Lines, Where Relevant Kind Code<sup>2</sup> (If Number MM-DD-YYYY Passages or Relevant known) Figures Appear 5/9/95 382/245 5,414,804 Α McWaid 382/199 15 5,953,452 Α Boone, et al. 9/14/99 375/240.01 5,686,961 A Gasztonyi, et al. 11/11/97 708 1402 **B**1 4/24/01 6,223,195 Tonomura 6,259,396 **B**1 Pham, et al. 7/10/01 342/ 3/27/01 **B1** Allen, Jr., et al. 6,208,982 706 706/25 15 6,560,586 **B1** Liang, et al. 5/6/03 15 13 Aghajan, et al. 5/10/94 5,311600 382 11/11/97 5,687,364 Saund, et al. 70 Y 15 Khan, et al. 10/14/97 5,677,609 318 / <u>5</u> 15 6,016,190 Glazman 1/18/00 7/12/94 708/822 15 5,329,478 Kirk, et al. 15 9/28/99 5,960,055 Samarasekera, et al. 9/14/99 5,953,388 Walnut, et al. 15 \_ دسخه MAR 3 0 2004 Technology Center 2600

				F	OREIGN PATENT DOCUMEN	NTS		
Exam. Initial*	Cite No. <sup>1</sup>	Forei Office <sup>3</sup>	gn Patent D Number <sup>4</sup>	ocument Kind Code <sup>5</sup> (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
			1	,				

Examiner Date Considered Signature

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the twoletter code (WIPO Standard S.3). 4For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Complete if Known Substitute for Form 1449A/PTO (Modified) 09/767.647 Application Number INFORMATION DISCLOSURE Filing Date 1/22/01 STATEMENT BY APPLICANT First Named Inventor: Rising III. use as many sheets MAR 3 0 2004 necessary) **Group Art Unit** 2621 MAR 2 6 2004 **Examiner Name** Sherali, I. Technology Center 2600 80398.P341 Sheet **Attorney Docket Number** RADENAP OTHER ART - NO PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the T<sup>2</sup> Examiner Cite Initials\* No1 item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published Sahiner, et al., "Itera tive Inversion of the Radon Transform: Using Image-Adaptive Wavelet VS Constraints to Improve Image Reconstructions", IEEE Engineering in Medicine and Biology, Sept. 1996, Vol.15, Iss 5, pp.112-117. Calzone, et al., "Video Compression by Means-Corrected Motion Compensation of Partial Quadtrees", IEEE Transactions on Circuits and Systems for Video Technology, Vol.7, No.1, Feb. 1997, pp.86-96. Hsung, et al. "The Wavelet Transform of Higher Dimension and the Radon Transform", 1995 International Conference on Acoustics, Speech and Signal Processing, May 1995, Vol.2, pp.1113-Warrick, et al., "A Wavelet Localized Radon Transform Based Detector for a Signal with Unknown Parameters", 1995 Conference Record of the 29th Asilomar Conference on Signals, Systems and Computers", Oct. 1995, Vol.2, pp.860-866. Warrick, et al., "Detection of Linear Features Using a Localized Radon Transform with a Wavelet Filter", 1997 IEEE Intl. Conference of Acoustics, Speech and Signal Processing, April 1997, Vol.4, 15 pp.2769-2772. Rashid-Farrokhi, et al., "Localized Wavelet Based Computerized Tomography", Proceedings of the Intl. Conference on Image Processing, Oct. 1995, Vol. 2, pp. 445-448. 15 Meir, et al., "Stochastic Approximation by Neural Networks Using the Radon and Wavelet Transforms", Proceedings of the 1998 IEEE Signal Processing Society Workshop, Aug.1998, pp.224-15 Rashid-Farrokhi, et al., "Wavelet-Based Multiresolution Local Tomography", IEEE Transactions 15 on Image Processing, Vol.6, No.10, Oct.1997, pp.1412-1430. Destefano, et al., "Wavelet Localization of the Radon Transform in Even Dimensions", Proceedings of the IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis. 15 Oct. 1992, pp. 137-140. Olson, et al., "Wavelet Localization of the Radon Transform", IEEE Transactions on Signal 15 Processing, Vol.42, No.8, Aug. 1994, pp. 2055-2067. Sahiner, et al., "Iterative Inversion of the Radon Transform using Image-Adaptive Wavelet Constraints", Procee dings of the 1998 International Conference on Image Processing, Oct. 1998, 15 Vol.2, pp.709-713. Takizawa, et al., "Ultrasonic Tomography using Arc Focusing Beam", 1998 IEEE Ultrasonics 15 Symposium, Oct.1998, Vol.2, pp.1659-1662.

		<b>/</b>		
Examiner	101		Date	
Signature				18°10 X
_ Ω			Considered	

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute fo	or Form 1	1449A/PTO (Modified)	Compl	ete if Known					
INFO	RMA	TION DISCLOSURE	Application Number	09/767,647					
			Filing Date	1/22/01	=IVH				
SIA		NT BY APPLICANT	First Named Inventor:	Rising III.	1 V -1,=				
/		many sheets as necessary)	Group Art Unit	2621 MAR 3	0 2004				
	MAR ?	6 2004	Examiner Name	Sherali, I.	Cantan				
Sheet	(d)	of	Attorney Docket Number	80398.P341 Technology	Cétifei				
	TRA	OTHER ART - NO PATE	NT LITERATURE DOCUMEN	ITS					
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPIT item (book, magazine, journal, se number(s), publ	AL LETTERS), title of the article ( rial, symposium, catalog, etc.), da isher, city and/or country where pu	te, page(s), volume-issue	T <sup>2</sup>				
15		Sahiner, et al., "On the Use of Wave the 1992 IEEE Nuclear Science Symp pp.1129-1131.	lets in Inverting the Radon Transfosium and Medical Imaging Conf	form", Conference Record of Ference, Oct. 1992, Vol.2,					
15		Rodenas, et al., "A New Automatic Images", OCEANS '98 Conference Pr	roceedings, Sept. 1998, Vol. 2, pp. 6	513-618.					
15		Sahiner, et al., "Iterative Inversion of the Radon Transform Using Image-Adaptive Wavelet Constraints", 18 <sup>th</sup> Annual Intl. conference of the IEEE Engineering in Medicine and Biology Society, Oct.1996, Vol.2, pp.772-723.							
US		Lu, et al., "Directional Noise Removal from Aerial Imagery using Wavelet X-Ray Transform", 1998 IEEE International Geoscience and Remote Sensing Symposium Proceedings, Vol.4, July 1998, pp.2038-2040.							
15		Magli, et al., "A Pattern Detection and Radon Transform", 13th Intl.Conference	d Cmpression Algorithm Based or ce on Digital Signal Processing, Ju	n the Joint Wavelet and ally 1997, Vol.2, pp.559-562.					
15		Rising, "Inversion Processed in the MediaSoft Labs, US. Research Lab							
15		Albanesi, "Thresholding Wavelets f Dipartimento di Informatica e Sister	for Image Compression", 1998, mistica, pp.374-389.	IEEE, University of Pavia,					
15		Ahmed, et al., "Application of Multi- IEEE, International Symposium on pp.1273-1276.	layer Neural Networks to Imag Circuits and Systems, June 9-	e Compression", 1997 12, 1997 Hong Kong,					
15		Carroll, et al., "Construction of Neu Electrical Engineering Princeton Ur Networks, June 19-22, 1898, p.607	niversity, IJCNN International J '-611.	oint Conference on Neural					
15		Khuwaja, et al., "Fingerprint Image IEEE, pp.517-526	Compression", Physics Depart	tment, Kuwait University,					
15		Fanghanel, et al., "Optimizing Wave IEEE, Universitat der Bundeswehr	elet Transform Coding Using a Hamburg, pp.1341-1343.	Neural Network", 1997					

Examiner Signature	ILA	LICK		Date Considered	6/14	!
*Caraminan laikiali	1.7		 		<del></del>	

\*Examiner: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute fo	r Form 1	<b>449A/PTO</b> (Mo	dified)	. Complete if Known						
INFO	RMA	TION DIS	SCLOSURE	Application Number	09/767,647					
1/2/2 = 1	A	NIT DN/ A	DOLLOANT	Filing Date	1/22/01	1/22/01				
VUSTAI	#WE	NIBY A	PPLICANT	First Named Inventor:	Rising III.					
n 6 2004	(USE BS /	nany sheets as r	ecessary)	Group Art Unit	2621					
	<b>.</b>			Examiner Name	Sherali, I.					
Sheet		of	3	Attorney Docket Number	80398.P341					
TRADE		01	HER ART - NO PA	TENT LITERATURE DOC	UMENTS					
Éxaminér Initials*	Cite No <sup>1</sup>	item (bo	ok, magazine, journal, number(s), p	, serial, symposium, catalog, e publisher, city and/or country w	•	е				
15		C.J. Wu, "D. Science, Ne	ART 1-A Possible Id w Mexico Tech., So	deal Building Block of Memocorro, NM, Copyright 1994	ory Systems", Dept. of Comp IEEE, pp.1086-1091.	outer				
			A Change		RECEIVI	ED				
					JUL 0 9 200	14				
					Technology Center	er 2600				
					×					
	L			^ _						
Examiner Signature			Kil.	J	Date Considered 4	08/0				

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute for Form 1449A/PTO (Modified)				Complete if Known							
INF	OR:	ΝΛΔΤ	ION	DISCL	.OSURE	Application Number	er	09/767,647			
						Filing Date		1/22/01			
∦۲۳۳۲	<b>XX</b> E	ME	NT B	Y APP	LICANT	First Named Inver	ntor:	Rising III	Rising III		
		use as n	nany sheet	s as necessi	ary)	Group Art Unit 2621					
JUL O B 201	F					Examiner Name		Sherali, I.			
√ Sheet	<b>14</b>			of	3	Attorney Docket N	lumber	80398.P34			
BY B TRADE	MA				U.S. PATEI	NT DOCUMENTS	}				
Exam.	Cite No.1	U.S	. Patent D	ocument		tentee or Applicant of Document		Publication of Document	Pages, Columns, L Where Relevan	ines,	
muai	NO.	Numbe Code <sup>2</sup>	er	Kind (If known)	U) One	o bocoment		DD-YYYY	Passages or Rele Figures Appea	vant	
<b></b>							<u> </u>	<del></del>			
-							CEIVED	)			
								11	L 0 9 2004		
								L V 3 2004			
						<del>Techno</del>	ogy Center 260	<del>)0</del> —			
					***************************************		<u> </u>	•,			
								_			
						14 CTM t. T					
				· · · · · · · · · · · · · · · · · · ·							
										-10-2	
					FOREIGN PAT	ENT DOCUMEN	NTS				
	Cite	Forei	gn Patent I	Document_	Name of Pate	entee or Applicant	Date of Pub		Pages, Columns,	Т	
Initial* 1	No.'	Office <sup>3</sup>	Number	Kind Code (If known		d Document	of Cited Do		es, Where Relevant issages or Relevant Figures Appear		
		<del></del>	-	<del> </del>		· · · · · · · · · · · · · · · · · · ·					
										$\vdash$	
				<u> </u>							
<del>  -</del>	-						+			<del>  -  </del>	
				1	P		<del>,                                    </del>				
Examiner Signature			In.	/_	AZ		Dat	te Consider	2 KALI		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the twoletter code (WIPO Standard S.3). <sup>4</sup>For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute fo			, e	Complete if Known			
INFO	RMAT	TION DÍSE	PHSURE	Application Number	09/767,647		
				Filing Date	1/22/2001		
SIAI		NT BY APF		First Named Inventor:	Hawley K. Rising, III		
	(use as r	nany sheets as neces	sary)	Art Unit	2621		
				Examiner Name	Sherali, Ishrat I.		
Sheet2of2Attorney Docket Number080398.P341							
			NON PATENT LIT	ERATURE DOCUMENTS			
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published  GALLARDO, ALEJANDRO MORALES, "Characterization of higher order correlations in					
13			es," <u>http://www.thec</u>	orie.physik.uni-goettingen.de/			
	-						
	-				· · · · · · · · · · · · · · · · · · ·		
				<del> </del>			
:							
		4					
	<u> </u>						
Examiner Signature	/_	1 K -	1/2 X		Date Considered	P/10	

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English Transfation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute	for Form 1449/	PTO			Complete if Known			
•	INFOR	ΝΛΔΤ	TION DISCLOSURI		Application Number	09/767,647		
					Filing Date	1/22/2001		
•			NT BY APPLICAN nany sheets as necessary)	First Named Inventor:	Hawley K. Rising, III			
					Art Unit	2621		
	1 21	Test s	3		Examiner Name	Sherali, Ishrat I.		
Sheet	1/ OCI		of	2	Attorney Docket Number	080398.P341		
	CHO ALC: TRA	OFMER	U.S. PATEN	T DOCUMENTS				
Examiner	Cite No.			Publication Date	Name of Patentee or	Pages, Columns, Lines,		
Initials*			Document Number	MM-DD-YYYY	Applicant of Cited Document	Where Relevant		
		Number-Kind Code <sup>2</sup> (If known)			·	Passages or Relevant Figures Appear		
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						
		US-						

Examiner Cite No.1	Foreign Patent Document	Foreign Patent Document Publication Name of Patentee or  Date Applicant of Cited Document		Pages, Columns, Lines, Where Relevant	Τ°	
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Passages or Relevant Figures Appear	

			$\overline{}$						
Examiner		/ ///	7/		Date Co	nsidered	1/.	. /	
Signature	1/2/			]	11	108	J U	<b>Y</b>	
		7		·	/			<u> </u>	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.